M/035/002

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Elaine J. Dorward-King, Ph.D.
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Kennecott

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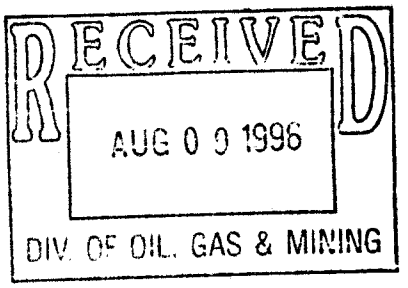

Mr. Lynn Kunzler
State of Utah Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, UT 84114-5801

Re: Biosolids Application at Bingham Canyon Mine - Triangle Borrow Site

Dear Mr. Kunzler:

Kennecott Utah Copper (KUC) requests agency approval to use biosolids at a maximum application rate of 35 dry tons per acre to reclaim a historical borrow site located at the Bingham Canyon Mine. The borrow site has been used over the years as a source for gravel products; prior use was for agricultural purposes. The site covers approximately 80 acres located in the SW 1/4 of Section 16 and the SE 1/4 of Section 17, Township 3 South, Range 2 West, Salt Lake County, Utah (see Drawing 451-T-3032). Topsoil is scarce in the general area and the soils are gravelly with silty clays. Site topography is comprised of rolling hills and gentle slopes running from the northwest to the southeast. The use of biosolids will improve soil conditions by increasing water retention capacity and providing organic matter, nitrogen and other plant nutrients. Based on KUC's past experience, the application of biosolids to the borrow site should improve the success of vegetation establishment and overall site reclamation.

It should be noted that no houses (public or private) or wells for human, livestock or agricultural use are located within 3,500 feet of the site. Bingham Creek channel (no water flow) is located approximately 2,000 feet north of the site. The borrow area is located entirely on KUC property, which is fenced and monitored by security personnel. No public access is allowed to the site and there is no domestic livestock grazing. Depth to ground water in the area is approximately 170 feet and there are no surface water drainages through the site.

WORK PLAN

Pending agency approval, KUC will apply biosolids to the 80 acre site in late August or early September. The biosolids will be supplied and delivered by the Central Valley Water Reclamation

Facility (CVWRF). CVWRF has supplied biosolids to various other biosolids projects at KUC. If CVWRF is unable to supply the required volume of biosolids, arrangements will be made with the South Valley Water Reclamation Facility (SVWRF) to supply additional biosolids in accordance with 40 CFR 503 (Standards for Sewage Sludge Use and Disposal) regulations. Within the approximately 80 acre site, the biosolids will be applied at 15 and 30 dry tons per acre in order to observe and obtain data for vegetation establishment at these application rates in gravelly, rocky soil conditions. A maximum 35 dry tons per acre application rate is requested for the project to allow for slight variances during application. After the biosolids have been applied, they will be disced into the ground to a depth of 12 to 15 inches. Following biosolids application and discing, the site will be reseeded as part of KUC's fall reclamation program.

Prior to biosolids application, soil samples will be collected to establish baseline parameters. A sample site will be established for each biosolids application rate (15 and 30 dry tons/acre). At least one sample site will be established at a downslope location outside of the biosolids application area. Samples will be collected at intervals of 0'-1', 1'-2', 2'-3', and 0'-2'. The samples will be analyzed for the following:

1. Agricultural Tests: pH, SAR (Sodium Absorbtion Ratio), EC (Electorical Conductivity), N as nitrate and nitrite, water holding capacity, CEC (Cation Exchange Capacity), acid-base potential, total organic matter, soil texture, P and carbon to nitrogen ratio.

2. Metals: DTPA (Diethylenetriaminepentaacetic acid) extractable metals (Fe, Zn, Cu, Mn, Cd, Pb, Ni, Cr), saturation extractable metals (Ca, Na, Mg) and total metals for As, Hg, Mo, and Se.

Sampling and testing will be conducted annually at the same locations sampled initially to establish the project baseline. Pending initial analysis, some parameters may be dropped from future sampling.

This letter is being sent to the following individuals and agencies: Utah Division of Water Quality (Lisa Rogers), Utah Division of Oil, Gas and Mining (Lynn Kunzler), and US EPA Region VIII (Bob Brobst). If you have any questions regarding this project please contact me at 801-252-3179 or Jon Cherry at 252-3126.

Sincerely,

Elaine J. Dorward-King

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Director, Environmental Affairs

Attachment